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09/598,750	06/22/2000	Norman D. Geddes	ASI0004-US	8625

			EXAMINER
27510	7590	02/19/2004	HIRL, JOSEPH P

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ART UNIT	PAPER NUMBER
2121	17

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 2003*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *9, 12, 16*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   This Office Action is in response to a Reconsideration entered December 10,

2003 for the patent application 09/598,750 filed on June 22, 2000.

2.   The First Office Action of July 10, 2003 is fully incorporated into this Final Office

Action by reference.

3.   The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give the claims their broadest reasonable interpretation in light

of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44USPQ2d 1023,

1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in

the claim are not read into the claim. *In re Prater,* 415 F.2d, 1393, 1404-05, 162 USPQ

541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The

Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Examiner will reference prior art using terminology familiar to one of ordinary skill in the

art. Such an approach is broad in concept and can be either explicit or implicit in

meaning.

4.   Examiner's Opinion:

        Para 3 above applies. The claims and only the claims form the metes and

bounds of the invention. The Examiner has full latitude to interpret each claim in the

broadest reasonable sense. From the perspective of the applicant, there maybe

features of a claim that are supported by the specification but the claim can be of such a

nature (broad based) that a good bit of it simply is not supported by the disclosure. It is

from this perspective that the Examiner is under statute responsibilities to reject the

claim under lack of enablement.   The Examiner's Notes are provided to the applicant

as side-bar comments to more readily identify how the Examiner is applying the prior art

and further to indicate to the applicant the position of the application related to

allowance. The Examiner's Notes unto themselves are not the grounds for

rejection...the cited prior art is the grounds for rejection. The Examiner strongly

encourages the applicant to modify the claims to more closely reflect what has been

disclosed in the specification.

Status of Claims

5.   Claims 1-27 are pending.

Response to Arguments

6.   The reply to the First Office action was addressed by the applicant to an

Examiner by the name of Nabil M El Hardy who is not the examiner of record in

Application Number: 09/598,750. However, all other references to the subject case

appear to be in order and thus the Examiner will assume that the error is of an informal

nature and the Examiner will proceed with the examination in the spirit of compact

prosecution.

7.   The objections to the figures are withdrawn.

8.   Applicant's arguments filed on December 10, 2003 related to Claims 1-27 have

been fully considered but are not persuasive.

In reference to Applicant's argument:

To anticipate a claim, the reference must teach every element of the claim. See Manual of Patent
Examining Procedure ("MPEP") § 2131.01. In rejecting claims in the application, the Office Action (OA)
mischaracterizes the technology disclosed in U.S. Patent No. 5,701,400 to Amado ["AMADO"] to find
claim elements not present in AMADO. In some instances, e.g., Claim 1, the OA neglects to account for
all the claim elements. In general, AMADO is insufficient as a 35 U.S.C. § 102 ("§ 102") reference against
the claimed invention. Further, the OA neglects to cite the paragraph of § 102 relied on for the rejections.
For the purpose of this reply, it is assumed that § 102 (b) is relied on.

Several references are used to illustrate how AMADO has been mischaracterized. Those references, that
can be found attached to this reply, are:

> • Attachment 1. [MCCARTHY] John McCarthy, Partial Formalizations and the Lemmings Game,
> "non monotonic reasoning" (March 2, 1998)
> <http://wwwformal.Stanford.edu/jmc/lemmings/node22.html >, accessed 12/10/2003.
>
> • Attachment 2. [RICH] ELAINE RICH, ARTIFICIAL INTELLIGENCE (various pages as noted)
> New York: McGraw Hill. (ISBN 0-07-052261-8).
>
> • Attachment 3. [KAPPA] Kappa-PC, Object Browser
> <http://www.intellicorp.com/produc:ts/kappapc/download/kappa-pc download.htm.>, accessed
> 12/08/2003.
>
> • Attachment 4. [CORKILL] Daniel D. Corkill, Blackboard Systems, AI Expert 6(9): 4047,
> September 1991.

Examiner's response:

        Para 3 above applies. All claim elements have been appropriately addressed.

Appropriate reference to 35 USC 102 (b) was identified on page 4 line 1 of the First

Office Action...which is sufficient. Regarding the above references, the applicant is

encouraged to review Para 3 above for it is from this perspective that the applicant's

disclosure was reviewed. The Examiner thanks the applicant for the above references

but points that that the proposed invention is defined first by the claims and then by the

specification as referenced by the claims.

In reference to Applicant's argument:

In several places, the OA appears to rely on either improperly taken official notice or an un-cited reference. In either case, a rejection under § 102 is improper. Official notice, without citation to a reference, is appropriate only when the assertion is capable of instant and unquestionable demonstration as being well known. See MPEP § 2144.03. It is readily seen that, in each instance of apparent official notice, the noticed information is not capable of instant and unquestionable demonstration as being well known. Except under limited circumstances (none of which applies here) a rejection under § 102 must be supported by a single reference that teaches every element of the claim. See MPEP § 2131. The undersigned requests any un-cited references be produced and instances of improperly taken official notice be withdrawn.

Examiner's response:

Para 3 above applies. No official notice was taken in the First Office Action. To each claim and each subclaim, appropriate references were made, addressing one of ordinary skill in the art. All references are single references and were appropriately represented. Since there were no official notices, a request for withdrawal of such is moot.

In reference to Applicant's argument:

In light of the remarks to follow regarding claim rejections; Claims 9-17 and 21 are in condition for allowance without rewriting them in independent form including all of the limitations of the base claim, any intervening claims and other issues related to the OA.

Examiner's response:

Applicant should fully understand that the above statement represents no allowance without fully acceptable base claims and appropriate treatment of other related factors.

In reference to Applicant's argument:

Regarding Rejections to Claims S-8, 26, and 27 Under 35 U.S. C. § 112, First Paragraph

Regarding Rejection of Claim 5 Under 35 U.S.C. § 112, First Paragraph.

The OA asserts that:

[t]he "non-monotonic model of economic benefit" is not enabled by the specification.

The written description as originally filed contains a definition of non-monotonic truth maintenance at P11 L13-15. In addition non- monotonic logic is well known as describing a type of inference framework that draws conclusions tentatively. See, e.g., Attachment 1. Those skilled in the art of the invention would understand an economic model based on non-monotonic reasoning.

As a consequence the phrase non -monotonic model of economic benefit does find support in both the specification and in the art to enable one skilled in the art of the invention to make and/or use the invention.

Examiner's response:

Para 3 above applies. Simply stated, the applicant's reference is to "Non-Monotonic Truth Maintenance" which is not "non-monotonic model of economic benefit". The Examiner asks the applicant to understand and fully accept that the claims and only the claims form the metes and bounds of the invention. One cannot say one thing in the claims and something different in the specification. The Examiner must exercise care to insure that one of ordinary skill in the art can replicate the invention without undue experimentation. A patent is given for novel and non obvious inventions where full disclosure is required such that one of ordinary skill in the art can replicate the invention without undue experimentation. Terminology as cited in this instant example causes at best confusion and cannot be tolerated. The rejection remains.

In reference to Applicant's argument:

Regarding -Rejection of Claim 6 Under 35 U.S.C. ~ 1 12, First Paragraph.

The OA asserts that:

[t]he "commitment level of the partial order planner" is not enabled by the specification.

The written description as originally filed discloses, at P05 L09 - P06 L04 (emphasis added), that:

... partial order, least commitment planners provide for graded levels of commitment to a set of activities. This allows the planner to maintain multiple alternative means to achieve multiple simultaneous goals, card increase or decrease its level of commitment to each of the alternatives as the situation unfolds. In this way, the choice of alternative to execute can be deferred until it is clear which alternative is superior. A partial order least commitment planner is also able to select multiple alternatives for execution as a means for hedging against uncertainty in outcomes.

Also, at P20 L10-19 (emphasis added; the reference to Fig. 6 should be to Fig. 4), the written description discloses:

In one embodiment of the present invention, the planner 302 is a partial order planner and manages its level of commitment to the activities in the plan by using a state transition method to set the life cycle states of plan sub-elements. One embodiment of the plan life cycle state transitions is shown in FIG 6. As a plan sub element proves through its life cycle states from candidate towards the active state, the partial order planner is increasing its commitment to that plan sub-element. The partial order planner may also reduce its commitment by changing the plan sub-element state to rejected state or revoked state and ultimately to a terminated state. This mechanism provides a non-monotonic, graded level of commitment for each plan sub element. By these examples at a minimum, the phrase commitment level of the partial order planner does find support in the specification to enable one skilled in the art of the invention to make and/or use the invention.

Examiner's response:

Para 3 applies. In the first reference, the specification is addressing "the least commitment planner" and not a "partial order planner". In the second reference, while the specification does acknowledge a "partial order planner", where does the specification cite "a commitment level". The only reference to "level" is in the final sentence and there it is not to a "partial order planner", but to a "graded level of commitment for each plan sub element". The rejection remains.

In reference to Applicant's argument:

Regarding Rejection of Claim 7 Under 35 U.S.C. § 112, First Paragraph.

The OA asserts that:

[t]he "life cycle states of one or more plan instances according to a commitment level of the partial order planner" is not enabled by the specification

The written description, as originally filled, discloses at P20 L10-1-9 (emphasis added; the reference to Fig. 6 should be to Fig. 4):

In one embodiment of the present invention, the planner 302 is a partial order planner and manages its level of commitment to the activities in the plan by using a state transition method to set the life cycle states of plan sub-elements. One embodiment of the plan life cycle state transitions is shown in FIG 6. As a plan sub element moves through its life cycle states from candidate towards the active state, the partial order planner is increasing its commitment to that plan sub-element. The partial order planner may also reduce its commitment by changing the plan sub-element state to rejected state or revoked state and ultimately to a terminated state. This mechanism provides a non-monotonic, graded level of commitment for each plan sub-element. "

In addition to creating the decomposition of a plan into its sub-elements, the planner manages the specific life cycle states of each sub-element of a plait. The life cycle states, depicted in FIG. 4, provide the mechanism for managing the commitment of the system to the each of the plan sub-elements. Each of the life cycle states of a plan sub-element has specific monitoring knowledge associated with it, serving to focus the processing of the situation assessor and providing for an event-based control of the planner. By these examples at a minimum, the phrase "1 if a cycle states of one or more plan instances according to a commitment level of the partial order planner" does find support in the specification to enable one skilled in the art of the invention to make and/or use the invention.

Examiner's response:

Para 3 applies. First, since the rejection of claim 6 remains, it follows that the rejection of claim 7 will remain. Notwithstanding this statement, the first reference does not state what is written in claim 7. This is obvious by comparing the two statements. When the Examiner, under the authority of Para 3, broadly interprets claim 7...claim 7 simply is not enabled. Again in the second reference, the applicant is not referring to what has been claimed. Where is a reference to a "partial order planner" in the second reference? The rejection of claim 7 remains.

In reference to Applicant's argument:

The OA asserts that:

"[t]he "inference engine determined what further processing is needed by the partial order planner based on the monitoring of the situation" is not enabled by the specification."

P27 Ll10 -16 of the written description, as originally filed, states:

Each of the life cycle states of a plan sub-element has specific monitoring knowledge associated with it, serving to focus the processing of the situation assessor and providing for an event-based control of the planner. Through out the life cycle of a PGG plan or goal, the partial order planner maintains the parameters of the plan or goal and monitors for its success or failure. As a result, the planner can

dynamically adjust plan parameters that mediate its execution and dynamically reselect and specialize children of a node as required.

By this example at a minimum, the phrase "inference engine determined what further processing is needed by the partial order planner based on the monitoring of the situation" does find support in the specification to enable one skilled in the art of the invention to make and/or use the invention.

Examiner's response:

Para 3 above applies. If the situation develops wherein a non planned life cycle state develops, what parameters or goals are used? How does the inference engine respond? What is the baseline for further processing? How does the method and system adjust to the non anticipated dynamic ... non linear ... near random ... events? How does the inference engine operate outside the planned profile? These are just a few of the questions that need to be addressed based on the statement of the claim. The rejection of claim remains.

In reference to Applicant's argument:

The OA asserts that" [t] he claim as stated is not to be found in the specification."

The claim states:

26. The dynamic business process management system of claim 25, wherein each agent of the plurality of agents determines the intentions of one or more users and wherein the data management system of a first agent of the plurality of intelligent agents shares data with a second agent of the plurality of intelligent agents representing the determined intentions of the one or more users to facilitate collaboration. The written description, as originally filled, discloses at P26 L14-P24 L19(emphasis added):

In another- embodiment of the present invention, a plurality of dynamic business process management systems after the present invention, and each containing art inference engine with a situation assessor 307, can send and receive concept instances to each other. In this manner; sharing of situations between the separate dynamic business process management systems is performed, allowing all participating systems to take advantage of results and conclusions made by another such system. The communications may, take place over a plurality of communications means, including direct connection, telephony, wireless medium, or network, such as Internet or local area networks.

In one embodiment of the present invention, the plans and situations shared by a set of distributed dynamic business process management systems that contain inference engines after the present invention are used by the inference engines to detect conflicts in planning between the collaborating companies. When a new or updated plan is received from a collaborating party by a second collaborating

party, the supply chain management inference engine of the second party evaluates the plan provided by the first party for conflicts with any existing plans of the second party. The knowledge base 306 contains specific knowledge defining how plans and goals call be in conflict. In one embodiment, the plan and goal conflict detection uses the approach described in Geddes, N.D., A model for intent interpretation for multiple agents with conflicts (1994). When conflicts are detected with shared plans, the conflicting parties are both notified about the detailed nature of the conflict using the information manager 304.

The intentions of users are determined by the sharing of situations between the separate systems. By this example at a minimum, the claim, as stated, finds support in the specification to enable one skilled in the art of the invention to make and/or use the invention.

The written description, as originally filed, also discloses at P21 L9(emphasis added):

In another embodiment of the present invention, a plurality of dynamic business process management systems after the present invention, and each containing an inference engine with ca planner 302, can send and receive plan instances and life cycle changes for plan instances to each other. In this manner, sharing of planning and graded commitment between the separate dynamic business process management systems is performed, allowing all participating systems to take advantage of information about the plans made by another such system. The communications may take place over a plurality of communications means, including direct connection, telephony, wireless medium, or network, such as Internet or local area networks

Examiner's response:

Para 3 applies. Claim 26, among other representations, facilitates the unconcerned sharing of conflicting real time instances to include plans. Further, the specification, knowledge base, has some rules for how plans and goals can be in conflict...limited in scope. What happens when the instance exceeds the profile of the knowledge base rules? Claim 26 is not enabled by the specification. The rejection of claim 26 remains.

In reference to Applicant's argument:

The OA asserts that:

[t]he "shared data to automatically detect conflicts" is not enabled by the specification.

P26 C14 - P27 C15 of the written description, as originally filed, states (emphasis added):

In another embodiment of the present invention, a plurality of dynamic business process management systems after the present invention, and each containing an inference engine with a situation assessor 307, can send and receive concept instances to each other. In this manner, sharing of situations between

the separate dynamic business process management systems is performed, allowing all participating systems to take advantage Of results and conclusions made by another such system. The communications ma h take place over a plurality, of communications means, including direct connection, telephony, wireless medium, or network, such as Internet or local area networks.

In one embodiment of the present invention, the plans and situations shared by a set of distributed dynamic business process maj7agement systems that contain inference engines after the present invention are used by the inference engines to detect conflicts in planning between the collaborating companies. When a new or updated plan is received from a collaborating party by, a second collaborating party, the supply chain management inference engine of the second party evaluates the plan provided by the first party for conflicts with any existing plans of the second party. The knowledge base 306 contains specific knowledge defining how plans and goals can be in conflict. In one embodiment, the plan and goal conflict detection uses the approach described in Geddes, N.D., A model for intent interpretation for multiple agents with conflicts (1994). When conflicts are detected with shared plans, the conflicting parties are both notified about the detailed nature of the conflict using, the information manager 304.

Examiner's response:

Para 3 applies. Specification as noted is restricted to "direct conflicts in planning" and involves "collaborating companies". What takes place when conflicts are not in planning and when companies were collaborating but are not fully collaborating or if one of the past collaborating companies is now under bankruptcy protection? The claim includes all of these situation and more. What does one of ordinary skill in the art do since the specification provides no enablement? The rejection of claim 27 remains.

In reference to Applicant's argument:

The OA asserts that:

Claims 18-23 rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. The practical application test requires that a useful, concrete and tangible result be accomplished. Claims 18-23 represent abstract methodology and therefore are intangible.

The Examiner has the burden to establish a prima facie case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101. Further, such a rejection must expressly state how the language, of the claims has been interpreted to support the rejection. Sec MPEP § 2106.

Claim 18 states, in part:

... using a knowledge base to create a plan for meeting the determined goal.

Claim 18 produces a useful, concrete, and tangible result, e.g., a plan for meeting a determined goal.
Plan and goals are described as useful, concrete, and tangible items throughout the written description.

Examiner's response:

The issue as stated by the First Office Action is one of intangibility. To one of

ordinary skill in the art, claims 18-23 represent abstract methodology and are not

embodied in a practical application of the technical arts. The rejection of claims 18-23

remain.

In reference to Applicant's argument:

(1, 24) The OA fails to address the inference engine including a partial order planner.

The claims state, in part:

... an inference engine coupled 1o the knowledge base, the inference engine including a partial order
planner; ... The OA asserts, in part, that:

Amado anticipates ... <the above-cited portion of the claims> (Amado, col 2, lines 52-65; col 31, lines 58-
67; Examiner's Note (EN): from the specification, page.19, lines 18-21, a planner merely solves what is
normally referred to as an NP type problem; from specification, page 20, lines 1-9, a partial order planner
determines a less than optimal solution or what may be referred to as a local optimum; using para 2
above, a generalized expert system is equivalent to a partial order or least commitment planner);

"para 2 above" asserts, in part

2. The claims and only the claims form the metes and bounds of the invention. The Examiner has full
latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using
terminology familiar to one of ordinary skill in the art.

The referenced lines from Amado do not disclose the use of a partial order planner. The OA explicitly
acknowledges this by relying on the Examiner's Note to incorrectly equate a generalized expert system to
the required partial order planner.

Examiner's response:

Para 3 above applies. Indeed, the Examiner has made his point and Amado

anticipates the applicant's invention under the principle of broad interpretation.

In reference to Applicant's argument:

First, the OA neglects to consider the explicit differences between expert systems and partial order/least commitment planners found throughout the specification, e.g., P05 L 10 - P06 L04 (describing partial order planners), P09 L12 - P1 1 L15 (a glossary listing different definitions for, among other things, expert system, partial order planner, least commitment planner). Taking a broad interpretation of the claims does not include intentionally ignoring distinctions made clear in the written description.

Examiner's response:

Para 3 applies. It is the claims and only the claims that define the metes and

bounds of the invention. Expert systems apply to the claims.

In reference to Applicant's argument:

Second, those skilled in the art at the time of invention knew that generalized expert systems are not equivalent to partial order planners. A rule-based expert system is poorly suited to the problem of a partial order planner because rules do not conveniently and compactly support the relationships needed in planning (e.g., problem decomposition into sub-problems, conflict management, sequencing of sub-problems, constraint management).

Examiner's response:

Para 3 applies.   But indeed expert systems apply.

In reference to Applicant's argument:

The unique aspects of planning that clearly distinguished planning from any other type of knowledge-based system is given on pages 40-45, sections 2.2.2 through 2.2.4, of RICH. See Attachment 2. Furthermore, RICH also elaborates on the distinctions between different types of planning and planners and shows the importance of these differences in discussions on pages 7375 in conjunction with the method known as "generate and test". This reference is one of many of this period that clearly distinguish between planning and rule-oriented logic systems, a distinction that was well known by those practiced in the art. RICH, Chapter 8, describes least commitment planning (page 258-259 and 272-275) and clearly distinguishes it from other forms of planning and reasoning. See Attachment 2.

Examiner's response:

Para 3 applies. Rich at p 42, I 38 cites: "... planning can at best generate a

sequence of operators that has a good probability of leading to a solution." Certainly,

an expert system performs such functions. "Generate and Test" is also accomplished

by applying a rule in an expert system. Rich's "least-commitment strategy" at p 258-259

is quite compatible with expert systems.

In reference to Applicant's argument:

Finally, the OA appears to rely on either improperly-taken official notice, or an un-cited reference. In each case. a rejection under § 102 is improper. Official notice, without citation to a reference, is appropriate only when the assertion is capable of instant and unquestionable demonstration as being well-known. See MPEP 2144.03. It is readily apparent that the assertion "a generalized expert system is equivalent to a partial order or least commitment planner" is not capable of instant and unquestionable demonstration as being well-known.

Examiner's response:

Para 3 applies. Official notice has not been taken in the referenced office action.

From the First Office Action at p 4, lines 13-15, "*__using para 2 above__*, a generalized

expert system is equivalent to a partial order or least commitment planner" does indeed

follow from the broad interpretation perspective of the applicant's claims. The

applicant's comments, references and the above Examiner's Response fully establish

the rationale of the Examiner's position as it has cited Amado's anticipation of the

applicant's invention.

In reference to Applicant's argument:

(1, 24) The OA fails to address management system that collects and distributes data regarding one or more business processes.

The claims state, in part:

... management system that collects and distributes data regarding one or more business processes; ... The OA asserts, in part, that Amado discloses this limitation at C48 L54-57 and Fig. 127. The cited section of AMADO states:

FIG. 127 shows a typical report generated by a "corrective management system": profits and number of defects for four business divisions for the previous and current periods, and the increment (decrement) in these numbers.

The referenced lines from AMADO merely refer to the figure. Neither the referenced lines nor the figure relates to goals (future objectives) in any sense. The referenced lines and figure relate to past performance.

Examiner's response:

Para 3 applies. Applicant's claim states, in part: "... management system that collects and distributes data regarding one or more business processes; ..." Amado appropriately in a typical report generates information related to "profits and numbers of defects for four business divisions" which is all that is required.

In reference to Applicant's argument:

(1, 24) The OA fails to address the inference engine using the partial order planner to determine a plan for achieving at least one of the one or more goals.

The claims state, in part:

... wherein the inference engine uses the partial order planner to determine a plan for achieving at least one of the cane or more goals . ...

The OA asserts, in part, that AMADO discloses this limitation at CIO 1-14-34. The cited section of AMADO includes no reference whatsoever to a partial order planner: The cited sections describe software for modeling a task. and storing the model in a knowledge base.

Examiner's response:

Para 3 applies. Following from Amado at the above reference to include lines 39-40, Amado teaches a "complete knowledge-engineering methodology" which would anticipate the applicant's inference engine, partial order planner and goals.

In reference to Applicant's argument:

(24) The OA fails to address a plurality of intelligent agents, each of the plurality, of intelligent agents including.

The claim states, in part:

A dynamic business process management system comprising: a plurality of intelligent agents, each of the plurality of intelligent agents including: ...

The OA completely neglects addressing this limitation. No sections of AMADO include any reference whatsoever to a plurality of intelligent agents: A rejection under § 102 must be supported by a reference that teaches every element of the claim. See MPEP § 2131. Here, the reference does not teach every element of the claim.

Examiner's response:

Para 3 applies. "A dynamic business process management system comprising:" is the preamble of the claim and the body of the claim does not revert back to the substance of the preamble. "a plurality of intelligent agents, each of the plurality of intelligent agents including:" is defined by the subclaim elements that follow and to which the First Office Action fully responded. Further, to the cited Amado references, the following is appropriate at the general level of "a plurality of intelligent agents, each of the plurality of intelligent agents including": an intelligent agent is an object and Amado teaches a plurality of objects, i.e. Amado, c 12, l 7-31.

In reference to Applicant's argument:

Regarding, Claims 2 and 22, the OA fails to address wherein the knowledge base includes one or more plan goal graphs.

The claims state, in part:

... wherein the knowledge base includes one or more plan goal graphs.

The OA asserts, in part, that:

Amado anticipates the knowledge base includes one or more plan-goal graphs (Amado, col 4, lines 56-65; col 5, lines 7-31; EN: graphics for multilevel problem representation are equivalent.

The first set of referenced lines from AMADO disclose that a product known as Kappa PC(TM) provides graphical representation for knowledge and reasoning. Kappa-PC may be downloaded as noted above. No mention is made of plan-goal graphs. In the downloaded .zip file, there is a help file called H1.hlp. After opening H1.hlp, one can navigate to the User Guide, the Developer Tools, and the Object Browser. See Attachment 3. The Object Browser is the application that displays a graphic hierarchy. One familiar with the art would be easily able to discern all of the following. The hierarchy displayed is an inheritance

hierarchy which is made up of is-a relationships. For example, a horse is-a mammal is-a animal. A plan-goal graph is a different type of hierarchy. The relationships in a plan-goal graph hierarchy are is-decomposed-into-a-state-that-must-be-achieved and may-be-achieved-by. For example, a goal of being at a particular location may-be-achieved-by travel-by-aircraft or may-be-achieved-by travel-by-car or may-be-achieved-by travel-by-foot. One skilled in the art state would not state that travel-by-aircraft is-a state of being at some place. Rather, travel-by-aircraft is a means (a plan) by which one may end up in a location (a goal).

Examiner's response:

Para 3 applies. To one of ordinary skill in the art, a hierarchy is axiomatically made up of a sequence of (parent-child)-(parent-child)-etc. wherein a child can be a parent starting from a root node and terminating at a leaf or instance node. The applicant's Attachment 3 (Kappa-PC) referenced from Amado conforms to this configuration related to a graphical representation. Kappa-PC is a generic tool and is not limited in its teachings to any specific hierarchy content...certainly does not teach the exclusivity of "is-a" . With a plan-goal graph being of the configuration manifest by is-decomposed-into-a-state-that-must-be-achieved and may-be-achieved-by one has the configuration of (parent-child)-(parent-child)-etc. wherein a child can be a parent starting from a root node and terminating at a leaf or instance node, the form of a plan-goal graph is anticipated by Amado. Simply stated there is nothing novel or non obvious concerning a plan-goal graph. Amado anticipates plan-goal graphs by citing among other references, (Kappa-PC).

In reference to Applicant's argument:

Further, RICH Chapter 7 provides many different graphical depictions of knowledge and comments extensively on their differences and usages. Notably, RICH does not describe plan goal graphs. RICH clearly describes "semantic nets" as distinct from "Is-A" hierarchies (cf. RICH pages 204-207, 215, 218). The concept graph could properly be described as a semantic net with causal links. Such a form of semantic not is not discussed in RICH. See Attachment 2.

Examiner's response:

Para 3 applies. Applicant acknowledges that Rich does not teach plan goal

graphs. Amado anticipates plan-goal graphs by citing among other references, (Kappa-

PC).

In reference to Applicant's argument:

The second set of referenced lines from AMADO disclose that a product known as GB13 for Windows-I'm. CORKILL describes the technology behind GBB. See Attachment 4. In CORKILL, tile phrase "plan-goal graph" does not appear. "Graph" and "goal" do not appear. In "Flexible representation of blackboard information" on page 2 of Corkill states that the blackboard does not structure the information it contains. In contrast, embodiments of the present invention claim specific structures: a plan-goal graph and a concept graph. In "Common interaction language" on pages 2-3, Corkill states that the information stored on the blackboard must be understood by each automated knowledge source (KS) that wants to use the information. If Corkill were advocating the use of plan-goal graphs and concept graphs, this is the exact place where such advocacy would appear. Instead, he mentions "formulas, diagrams, sentences, and checklists." Again, Amado does not teach the use of plan goal graphs for planning in the manner claimed.

Examiner's response:

Para 3 applies. To one of ordinary skill in the art, a hierarchy is axiomatically

made up of a sequence of (parent-child)-(parent-child)-etc. wherein a child can be a

parent starting from a root node and terminating at a leaf or instance node. The

applicant's GBB referenced from Amado conforms to this configuration related to a

graphical representation. GBB is a generic tool and is not limited in its teachings to any

specific hierarchy content and certainly with the capability to "allow multi-problem

representation" as part of its graphic system, it consequently will (has to) structure

such information as the graphics would so display. With a plan-goal graph being of the

configuration manifest by is-decomposed-into-a-state-that-must-be-achieved and may-

be-achieved-by one has the configuration of (parent-child)-(parent-child)-etc. wherein a

child can be a parent starting from a root node and terminating at a leaf or instance

node, such plan-goal graph is anticipated by Amado. Simply stated there is nothing

novel or non obvious concerning a plan-goal graph. Amado anticipates plan-goal

graphs by citing among other references, GBB.

In reference to Applicant's argument:

In addition, the OA neglects to consider the definition of plan-goal graph found in the specification, e.g., Pl 1 L07-10.

Examiner's response:

Para 3 applies. It is the claims and only the claims that form the metes and

bounds of the invention. From the specification definition at p 11, l 7-10, the definition

does not support the applicant's comments in the response dated December 10, 2003

at p 14, l 20-24.

In reference to Applicant's argument:

Finally, the OA appears to rely on either improperly-taken official notice, or an un-cited reference. In each case, a rejection under § 102 is improper. Official notice, without citation to a reference, is appropriate only when the assertion is capable of instant and unquestionable demonstration as being well-known. See MPEP 2144.03. It is readily apparent that the assertion "graphics for multilevel problem representation are equivalent <to plan-goal graphs>" is not capable of instant and unquestionable demonstration as being well-known. Except under limited circumstances (none of which applies here) a rejection under § 102 must be supported by a single reference that teaches every element of the claim. See MPEP 2131.

Examiner's response:

Para 3 applies. Official notice has not been taken in the referenced office action.

From the First Office Action at p 5, line 4, "graphics for multilevel problem

representation are equivalent" does indeed follow from the broad interpretation

perspective of the applicant's claims. The applicant's comments, references and the

above Examiner's Response fully establish the rationale of the Examiner's position as it

has cited Amado's anticipation of the applicant's invention.

In reference to Applicant's argument:

Regarding Claims 3, 23, 25, and claims dependent from them, the OA fails to address wherein the knowledge base includes one or more concept graphs.

The claims state, in part:

... wherein the knowledge base includes one or more concept graphs.

Amado anticipates the knowledge base includes one or more concept graphs (Amado, col 4, lines 56-65; col 5, lines 7-31; EN: graphics I-or multilevel problem representation are equivalent).

The referenced lines from AMADO disclose that a product known as Kappa-PC(TM) provides graphical representation for knowledge ... and reasoning. No mention is made of concept graphs.

First, the OA neglects to consider the definition of concept graph found in the specification, e.g., P09 L13-16.

Examiner's response:

Para 3 applies. It is the claims and only the claims that form the metes and

bounds of the invention. Concept graphs, viewed from a broad perspective provide

graphical representations that are anticipated by Amado (Kappa-PC™). See above

discussions regarding graphs. From the specification definition at p 9, I 13-16-10, the

concept graph definition does not support the applicant's comments in the response

dated December 10, 2003 at p 14, I 20-24.

In reference to Applicant's argument:

Second, those skilled in the art at the time of invention knew that graphical representation of knowledge is not equivalent to the use of concept graphs. As noted about with regard to the rejection of Claims 2 and 22, the hierarchical graphs in Kappa-PC are inheritance hierarchies (is a) and that the concept graph hierarchies are causal reasoning hierarchies ("causes"). For example, the concept that Atlanta-has-rainy-weather causes potential-flight-delays-at-the Atlanta-airport. Further, RICH Chapter 7 (See Attachment 1) provides many different graphical depictions of knowledge and comments extensively on their differences

and usages. Notably, RICH does not describe plan goal graphs. RICH clearly describes "semantic nets" as distinct from is-a hierarchies (cf. RICH pages 204-207, 215, 218). The concept graph could properly be described as a semantic net with causal links. Such a form of semantic not is not discussed in RICH .

Examiner's response:

Para 3 applies. Above discussions apply. The claims and only the claims form the metes and bounds of the invention. To one of ordinary skill in the art, a hierarchy is axiomatically made up of a sequence of (parent-child)-(parent-child)-etc. wherein a child can be a parent starting from a root node and terminating at a leaf or instance node. Such relationships are causally established. Rich does not describe plan goal graphs. The specification as well as Rich, does not establish concept graphs as semantic nets with causal links.

In reference to Applicant's argument:

Third, the OA appears to rely on either improperly-taken official notice, or an un-cited reference. In each case, a rejection under § 102 is improper. Official notice, without citation to a reference, is appropriate only when the assertion is capable of instant and unquestionable demonstration as being well-known. See MPEP 2144.03. It is readily apparent that the assertion "graphics for multilevel problem representation are equivalent <to concept graphs>" is not capable of instant and unquestionable demonstration as being well-known. Except under limited circumstances (none of which applies here) a rejection under § 102 must be supported by a single reference that teaches every element of the claim. See MPEP 2131.

Examiner's response:

Para 3 applies. Official notice has not been taken in the referenced office action. From the First Office Action at p 5, line 4, "graphics for multilevel problem representation are equivalent" does indeed follow from the broad interpretation perspective of the applicant's claims. The applicant's comments, references and the above Examiner's Response fully establish the rationale of the Examiner's position as it has cited Amado's anticipation of the applicant's invention.

In reference to Applicant's argument:

Regarding Claim 4 and claims dependent from it, the OA fails to establish a prima facie case of anticipation.

The claims state, in part:

... wherein the inference engine creates one or more plan instances.

The OA asserts, in part, that:

Amado anticipates the inference engine creates one or more plan instances (Amado, col 3, lines 13-18).

The referenced lines from Amado disclose:

The ability of expert systems to reason about rules as well as input data makes them particularly adept at handling many different types of problems, such a diagnosis and classification, data analysis and interpretation, design and synthesis, predictions and simulation, monitoring, instruction, planning, control and repair.

It is not apparent that the referenced section of AMADO (nor any other section) addresses the creation of plan instances. A rejection under § 102 must be supported by a single reference that teaches every element of the claim. See MPEP 2131. Here, the reference does not teach an element of the claim, i.e., an inference engine creating one or plan instances.

Examiner's response:

Para 3 applies. In the broad perspective, "plan instance" involves prediction and simulation. The expert system has a inference engine. To one of ordinary skill in the art, Amado at c 3, I 13-18 anticipates the applicant's invention.

In reference to Applicant's argument:

Further, the earlier cited portions of RICH, especially Chapter 2 (sections 2.2.2-2.2.4) and Chapter 8 strongly contradict the claim in Amado that rule-based systems (as opposed to inference engines) are particularly adept at planning. See RICH at Attachment 1.

Examiner's response:

Para 3 applies. To one of ordinary skill in the art, it is well known that an inference engine absent a knowledge base would be far inferior to a rule-based system

and would certainly be very inept at planning. Rich at p 40, I 32-33, ch 8, p 248, I 16-18

certainly does not ignore rules. The "strong contradict" is not apparent.

In reference to Applicant's argument:

(18) The OA fails to address determining a goal for a user of the business process management system.

The claims state, in part:

... determining a goal, for a user of the business process management system; ...

The OA asserts, in part, that:

Amado anticipates <the above-cited portion of the claims> (Amado, col 4, lines 33-34 ...

The referenced lines from Amado disclose:

(vii) Planning expert systems select a series of actions from a complex set of alternatives to meet a user's goal.

The referenced lines from Amado do not disclose determining a goal for a user as claimed. The referenced lines disclose selection to meet goals that have already been determined. A rejection under § 102 must be supported by a single reference that teaches every element of the claim. See MPEP 2131. Here, the reference does not teach determining a goal for a user of the business process management system

Examiner's response:

Para 3 applies. In the broad perspective, determining a goal means what is the

next goal and that is anticipated by Amado in the full quoted reference wherein

"Priorities must be established in order to resolve conflicts" ... and priorities establish

the next goal.

In reference to Applicant's argument:

(18) The OA fails to address using a knowledge base to create a plan for meeting the determined goal.

The claims state, in part:

... using a knowledge base to create a plan for meeting the determined goal; ...

The OA asserts, in part, that:

Amado anticipates ... <the above-cited portion of the claims> (Amado, col 4, lines 33-34 ...

The referenced lines from AMADO disclose:

(vii) Planning expert systems select a series of actions from a complex set of alternatives to meet a user's goal.

The referenced lines from AMADO do not disclose using a knowledge base to create a plan for meeting the determined goal claimed. The referenced lines disclose selection to meet goals that have already been determined. A rejection under § 102 must be supported by a single reference that teaches every element of the claim. See MPEP 2131. Here, the reference does not teach determining a goal for a user of the business process management system.

Examiner's response:

Para 3 applies. To one of ordinary skill in the art, an expert system has a

knowledge base which is part of the planning expert system identified by the full Amado

reference.

In reference to Applicant's argument:

(18) The Examiner's Note is not a basis for rejection under § 102.

The OA asserts, in an Examiner's Note, that:

This claim <Claim I8> is grossly general and fail to convey the intent of the invention.

The undersigned requests that the Examiner withdraw this note, or explain it's relevance to a rejection under § 102.

Examiner's response:

Para 3 applies. All rejections have been explained in the First Office Action and

in the discussions above. The claims has been rejected on the basis of the quoted

references of Amado. The EN remains as stated...the Examiner's opinion.

In reference to Applicant's argument:

Regarding Claim 19 the OA fails to address determining a goal and creating a plan. or meeting the goal ... using a partial order planner.

The claims state, in part:

... wherein the act of determining a goal and creating a plan for meeting the goal is performed using a partial order planner; ... The OA asserts, in part, that:

Amado anticipates ... <the above-cited portion of the claims> (Amado, col 3, lines 13-18; EN: comments related to partial order planner of Claim 1 applies).

The Examiner's comments related to partial order planner of Claim 1 includes:

... from the specification, page 19, lines 18-21, a planner merely solves what is normally referred to as an NP type problem; from specification, page 20, lines 1-9, a partial order planner determines a less than optimal solution or what may be referred to as a local optimum; using para 2 above, a generalized expert system is equivalent to a partial order or least commitment planner);

"para 2 above" asserts:

2. The claims and only the claims form the metes and bounds of the invention. The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art.

The referenced lines from AMADO do not disclose the use of a partial order planner. The OA explicitly acknowledges this by relying on the Examiner's Note to equate a generalized expert system to the required partial order planner.

Examiner's response:

Para 3 applies. From a broad perspective, partial order planners relate to the

planning process and the planning process relates to a generalized expert system ...

the generalized expert system anticipates the partial order planner.

In reference to Applicant's argument:

First, the OA neglects to consider the explicit differences between expert systems and partial order/least commitment planners found throughout the specification, e.g., P05 L10 - P0G 1,04 (describing partial order planners), P09 L1 2 - P11 Ll5 (a glossary listing different definitions for, among other things, expert system, partial order planner, least commitment planner). Taking a broad interpretation of the claims does not include intentionally ignoring distinctions made clear in the written description.

Examiner's response:

Para 3 applies. *It is the claims and only the claims that define the metes
and bounds of the invention.*

In reference to Applicant's argument:

Second, those skilled in the art at the time of invention knew that generalized expert systems are not equivalent to partial order planners. A rule-based expert system is poorly suited to the problem of a partial order planner because rules do not conveniently and compactly support the relationships needed in planning (e.g., problem decomposition into sub-problems, conflict management, sequencing of sub-problems, constraint management). RICH pages 40-45 and the discussion in Chapter 8 provide a detailed explanation, summarized earlier in this Reply, as to why expert systems are not equivalent to partial order planners. Sec RICH at Attachment 2.

Examiner's response:

Para 3 applies. But indeed expert systems apply. Rich, as the applicant admits

above, does not address partial order planners.

In reference to Applicant's argument:

Third, the OA appears to rely on either improperly-taken official notice or an uncited reference. In either case, a rejection under § 102 is improper. Official notice, without citation to a reference, is appropriate only when the assertion is capable of instant and unquestionable demonstration as being well-known. See MPEIP § 2144.03. It is readily apparent that the assertion "a generalized expert system is equivalent to a partial order or least commitment planner" is not capable of instant and unquestionable demonstration as being well-known. Except under limited circumstances (none of which applies here) a rejection under § 102 must be supported by a single reference that teaches every element of the claim. See MPEP § 2131.

Examiner's response:

Para 3 applies. Official notice has not been taken in the referenced office action.

From the First Office Action at p 4, line 13-16, "a generalized expert system is

equivalent to a partial order or least commitment planner" does indeed follow from the

broad interpretation perspective of the applicant's claims. The applicant's comments,

references and the above Examiner's Response fully establish the rationale of the

Examiner's position as it has cited Am ado's anticipation of the applicant's invention.

In reference to Applicant's argument:

Regarding Claim 20 the OA fails to address wherein the partial order planner is a least commitment planner.

The claims state, in part:

...wherein the partial order planner is a least commitment planner.

The OA asserts, in part, that:

Amado anticipates ... <the above-cited portion of the claims> (Amado, col 3, lines 13-18; EN: comments related to partial order planner of Claim 1 applies).

The Examiner's comments related to partial order planner of Claim I includes:

... from the specification, page 19, lines 18-21, a planner merely solves what is normally referred to as an NP type problem; from specification, page 20, lines 1-9, a partial order planner determines a less than optimal solution or what may be referred to as a local optimum; using para 2 above, a generalized expert system is equivalent to a partial order or least commitment planner);

"para 2 above" asserts:

2. The claims and only the claims form the metes and bounds of the invention. The Examiner has full-latitude to interpret each claim in the broadest reasonable sense., Examiner will reference prior art using terminology familiar to one of ordinary skill in the art.

The referenced lines from Amado do not disclose the use of a least commitment partial order planner. The OA explicitly acknowledges this by relying on the Examiner's Note to equate a generalized expert system to the required least commitment partial order planner.

Examiner's response:

        Para 3 applies. From a broad perspective, partial order planners relate to the

planning process and the planning process relates to a generalized expert system ...

the generalized expert system anticipates the partial order planner.

In reference to Applicant's argument:

First, the OA neglects to consider the explicit differences between expert systems and partial order/least commitment planners found throughout the specification, e.g., P05 LI0 - P06 L04 (describing partial order planners), P09 LI2 - P11 L15 (a glossary listing different definitions for, among other things, expert system, partial order planner, least commitment planner). Taking a broad interpretation of the claims does not include intentionally ignoring distinctions made clear in the written description.

Examiner's response:

Para 3 applies. ***It is the claims and only the claims that define the metes***

and bounds of the invention.

In reference to Applicant's argument:

Second, those skilled in the art at the time of invention knew that generalized expert systems are not equivalent to least commitment partial order planners. A rule-based expert system is poorly suited to the problem of a partial order planner because rules do not conveniently and compactly support the relationships needed in planning (e.g., problem decomposition into sub-problems, conflict management, sequencing of sub-problems, constraint management). Riot pages 40-45 and the discussion in RICH Chapter 8 provide a detailed explanation, summarized earlier in this Reply, as to why expert systems are not equivalent to least commitment partial order planners. See RICH at Attachment 2.

Examiner's response:

Para 3 applies.   But indeed expert systems apply.   Rich, as the applicant admits

above, does not address partial order planners.

In reference to Applicant's argument:

Third, the OA appears to rely on either improperly-taken official notice or an uncited reference. In either case, a rejection under § 102 is improper. Official notice, without citation to a reference, is appropriate only when the assertion is capable of instant and unquestionable demonstration as being well-known. See MPEIP § 2144.03. It is readily apparent that the assertion "a generalized expert system is equivalent to a partial order or least commitment planner" is not capable of instant and unquestionable demonstration as being well-known. Except under limited circumstances (none of which applies here) a rejection under § 102 must be supported. by a single reference that teaches every element of the claim. See MPEP § 2131.

Examiner's response:

Para 3 applies. Official notice has not been taken in the referenced office action.

From the First Office Action at p 4, line 13-16, "a generalized expert system is

equivalent to a partial order or least commitment planner" does indeed follow from the

broad interpretation perspective of the applicant's claims. The applicant's comments,

references and the above Examiner's Response fully establish the rationale of the

Examiner's position as it has cited Amado's anticipation of the applicant's invention.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made

in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9.   Claims 1-4, 18-20 and 22-25 are rejected under 35 U.S.C. 102(b)

as being anticipated by Amado (U. S. Patent 5,701,400, referred to as

Amado).

Claims 1, 24

Amado anticipates a knowledge base including expert knowledge

about one or more business

process domains (**Amado**, col 2, lines 52-65); an inference engine

coupled to the knowledge base, the inference engine including a partial

order planner (**Amado**, col 2, lines 52-65; col 31, lines 58-67;

Examiner's Note (EN): from the specification, page 19, lines 18-21, a

planner merely solves what is normally referred to as an NP type problem;

from specification, page 20, lines 1-9, a partial order planner determines a

less than optimal solution or what may be referred to as a local optimum;

using para 2 above, a generalized expert system is equivalent to a partial

order or least commitment planner); a management system that collects

and distributes data regarding one or more business processes and

determines one or more goals (**Amado**, col 48, lines 54-57; Fig. 127);

and a graphical user interface system that displays information regarding

the one or more business processes (**Amado**, Fig. 40); wherein the

inference engine uses the partial order planner to determine a plan for

achieving at least one of the one or more goals (**Amado**, col 10, lines

14-34).

Claims 2, 22

Amado anticipates the knowledge base includes one or more

plan-goal graphs (**Amado**, col 4, lines 56-65; col 5, lines 7-31; EN:

graphics for multilevel problem representation are equivalent).

Claims 3, 23, 25

Amado anticipates the knowledge base includes one or more

concept graphs (**Amado**, col 4, lines 56-65; col 5, lines 7-31; EN:

graphics for multilevel problem representation are equivalent).

Claim 4

Amado anticipates the inference engine creates one or more plan

instances (**Amado**, col 3, lines 13-18).

Claim 18

Amado anticipates determining a goal for a user of the business

process management system (**Amado**, col 4, lines 33-34); and using a

knowledge base to create a plan for meeting the determined goal

(**Amado**, col 4, lines 13-18). EN: This claim is grossly general and fails

to convey the intent of the invention.

Claim 19

Amado anticipates wherein the act of determining a goal and

creating a plan for meeting the goal is performed using a partial order

planner (**Amado**, col 3, lines 13-18; EN: comments related to partial

order planner of Claim 1 applies).

Claim 20

Amado anticipates the partial order planner is a least commitment

planner (**Amado**, col 3, lines 13-18; EN: comments related to partial

order planner of Claim 1 applies).

Conclusion

10.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

11.   Claims 9-17 and 21 are objected to. Claims 1-8, 18-20 and 22-27 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure

should be directed to the Examiner, Joseph P. Hirl, whose telephone number is

(703) 305-1668. The Examiner can be reached on Monday – Thursday from

6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the

Examiner's supervisor, Anil Khatri can be reached at (703) 305-0282.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7290 (for informal or draft communications with notation of

"Proposed" or "Draft" for the desk of the Examiner).

Hand-delivered responses should be brought to:

Receptionist, Crystal Park II

2121 Crystal Drive,

Arlington, Virginia.

Joseph P. Hirl

February 17, 2004

ANIL KHATRI
SUPERVISORY PATENT EXAMINER